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VIA ELECTRONIC FILING

The Honorable Jocelyn G. Boyd
Chief Clerk/Executive Director
Public Service Commission of South Carolina
101 Executive Center Drive, Suite 100
Columbia, SC 29210

**Re: South Carolina Energy Freedom Act (House Bill 3659) Proceeding Related to S.C. Code Ann. Section 58-37-40 and Integrated Resource Plans for Duke Energy Progress, LLC
Docket No. 2019-225-E (Duke Energy Progress, LLC)**

Modified 2020 IRP - SC Supplemental Portfolios and Analysis in Response to Order No. 2021-447

Dear Ms. Boyd:

Pursuant to Order No. 2021-447 and S.C. Code Ann. Section 58-37-40(C)(3), attached for filing in the above-referenced docket is Duke Energy Progress, LLC's ("DEP" or the "Company") South Carolina Modified Integrated Resource Plan ("IRP") Supplemental Portfolios and Analysis.

The Commission issued Order No. 2021-447 on June 28, 2021, finding in pertinent part that DEP and Duke Energy Carolinas, LLC ("DEC" and together with "DEP", "Duke Energy") needed to each select a preferred portfolio for resource planning purposes. Specifically, the Order directed that DEP and DEC should "modify their 2020 IRPs to select a preferred portfolio from the six portfolios presented in their IRPs." Order No. 2021-447, at 85. The Commission further directed the Companies to update their modeling assumptions in accordance with certain directives in the Order. *Id.*

In compliance with the Commission's Order and the new integrated resource planning framework established by the South Carolina General Assembly through Act. No. 62 of 2019 ("Act 62" or the "Act"), DEP is filing its South Carolina Modified IRP Supplemental Portfolios and Analysis ("SC Supplemental Portfolios and Analysis"). These SC Supplemental Portfolios and Analysis, together with the integrated resource plan filed on September 1, 2020 ("September 2020

IRP”), represent the Company’s “SC Modified IRP” for the Commission’s consideration and acceptance.¹ This is the Company’s first modified IRP prepared under Act 62, and has been developed consistent with the Commission’s Order requiring modifications to, but not rejecting, the September 2020 IRP. Accordingly, DEP has revised and supplemented the portfolios and analysis provided in its September 2020 IRP to present nine SC Supplemental Portfolios. The modeling assumptions and analysis used to develop the SC Supplemental Portfolios and Analysis are responsive to the Commission’s directives in Order No. 2021-447 prescribing items to be addressed in a “Modified IRP” versus a future IRP. The Executive Summary to the SC Supplemental Portfolios and Analysis addresses how this filing is responsive to the applicable directives in Order No. 2021-447.

SC Supplemental Portfolios

DEP’s SC Supplemental Portfolios and Analysis expands upon and are being added to DEP’s Portfolios A-F initially presented in the September 2020 IRP:

- Portfolio A: Base Without Carbon Policy
- Portfolio B: Base With Carbon Policy
- Portfolio C: Earliest Practicable Coal Retirements
- Portfolio D: 70% CO2 Reduction: Offshore Wind
- Portfolio E: 70% CO2 Reduction: Nuclear SMR
- Portfolio F: No New Gas Generation

The Company has developed and is presenting nine SC Supplemental Portfolios that have been developed with modeling assumptions used in the corresponding original six portfolios presented in the September 2020 IRP, except as modified in response to the Commission’s Order.

SC Supplemental Portfolios A1, A2, B1, and B2 present modified economically optimized portfolios with and without carbon policy assumptions, respectively. The Company has also developed two new earliest practicable coal retirement portfolios, Portfolios C1 and C2, as well as three “outcome oriented” supplemental portfolios based on Portfolio D, Portfolio E, and Portfolio F.

SC Preferred Portfolio

In Order No. 2021-447, the Commission directed the Company to update its IRP modeling and assumptions in certain respects and to also select a “single portfolio plan . . . as the most reasonable and prudent means of meeting their energy and capacity needs” at the time of the Commission’s review. Order No. 2021-447, at 12. After completing the significant work to develop the SC Supplemental Portfolios and Analysis, as required by the Order, DEP selected SC

¹ “No later than sixty days after the Office of Regulatory Staff report is filed with the commission, the commission at its discretion may determine whether to accept the revised integrated resource plan or to mandate further remedies that the commission deems appropriate.” S.C. Code Ann. § 58-37-40(C)(3).

Supplemental Portfolio C1 as the most reasonable and prudent plan for resource planning purposes at this time.² As described in the Executive Summary (Section 1), Portfolio C1 is modeled to plan for a rapid and significant reduction in carbon emissions by retiring all DEP and DEC coal-fired generation (approximately 10,000 MW) by 2030 and adding a diverse mix of solar, wind, storage, and gas to meet customers' electricity needs over the planning horizon. More than one-half of new resource additions in Portfolio C1 are solar and storage, bringing total solar to over 15,500 MW for the combined DEP and DEC systems over the 15-year planning period. SC Supplemental Portfolio C1 also balances aggressive carbon reduction plans with ensuring power supply reliability and customer affordability by leveraging existing infrastructure to facilitate the generation transition.

The selection of Portfolio C1 should be understood as directional in nature, demonstrating Duke Energy's desire to closely examine pathways to significant, near-term carbon reductions as opposed to a firm commitment to execute a specific resource plan at this point in time. Each of the supplemental portfolios has its own benefits and challenges, and no one option establishes "the perfect plan." However, the Company believes that utilizing Portfolio C1 as its SC preferred portfolio appropriately drives the energy transition conversation and related planning in a direction that supports "the most reasonable and prudent means of meeting [DEP]'s energy and capacity needs" today. Coal retirements of the magnitude contemplated under Portfolio C1 will require careful timing and strategy to plan replacement resources, as well as constructive regulatory and policy support. The development of new public policies and the advancement of new technologies will have a key role in shaping the development of this transition, as will stakeholder engagement and collaboration.

Procedure for Commission Review of Modified IRP Filing

Act 62 provides the South Carolina Office of Regulatory Staff ("ORS") 60 days to review DEP's Modified IRP and to submit a report to the Commission assessing the sufficiency of the revised filing to meet the requirements of the Act and the Commission's Order. *See* S.C. Code Ann. Section 58-37-40(C)(3). The Act also affords other parties to the IRP proceeding an opportunity to submit comments. The Commission must then take action on the Company's Modified IRP no later than 60 days after ORS submits its Report. In order to inform the Commission's review of the Modified IRP and SC Supplemental Portfolios and Analysis presented herein, DEP plans to, if necessary, file responsive comments to the ORS Report and any intervenor comments within 30 days of their filing, unless otherwise ordered by the Commission.

² While Duke Energy's September 2020 IRPs did not identify a preferred plan, DEP and DEC identified that Portfolio A (Base Plan Without Carbon) would be the "appropriate plan" for developing avoided costs under PURPA and demand-side management and energy efficiency filings because it reflects current regulatory and statutory policies that are in place today.

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Planning Towards 2022 Comprehensive IRP

Act 62 requires the Commission to evaluate whether Duke Energy's integrated resource plans are the most reasonable and prudent means of meeting the electrical utility's energy and capacity needs as of the time the plan is reviewed. The Company has worked diligently to incorporate the Commission's directives from Order No. 2021-447 into the SC Supplemental Portfolios and Analysis and believes Portfolio C1 is the most reasonable and prudent means of planning to meet the Company's capacity and energy needs at this time. While each of the modifications ordered by the Commission have been incorporated, the remaining inputs and assumptions in the Modified IRP are still based on information that was current as of the time period preceding the September 2020 IRP. More wholistic inputs and assumptions underlying the Modified IRP (*i.e.*, energy and demand forecasts, energy efficiency and demand-side management forecasts, and many others) as required by Act 62, will be updated in 2022. Moreover, the Company plans to file its next comprehensive IRP in September of 2022, ahead of a 2023 filing which would otherwise be required by Act 62.

Duke Energy looks forward to initiating significant IRP stakeholder engagement efforts and will incorporate Order No. 2021-447's requirements as to additional stakeholder collaboration to be conducted leading up to the 2022 comprehensive IRP. Duke Energy continues to appreciate the value of exploring these complex issues with interested stakeholders and looks forward to incorporating a range of perspectives in developing the 2022 IRPs.

Importantly, the Company notes that a final order is necessary to bring this IRP docket to a conclusion. A final order in these proceedings is a critical milestone and will provide necessary information and guidance to inform Duke Energy's stakeholder engagement plans and other IRP preparation efforts leading up to the comprehensive 2022 IRP targeted for filing in September of 2022.

Sincerely,



Heather Shirley Smith

Attachment

C: Parties of Record (via email w/ attachment)